

broad, preferably about 1:1, although other proportions may also be utilized depending on the type of lipid agent and the DNA utilized. This proportion is not crucial.

At page 20, lines 15-22, please delete the entire paragraph and insert therefor the following:

--The GFP-DNA-transferrin-polylysine viral complexes, prepared as described in Example 4 above, were delivered into the seminiferous tubules of three (3)-week-old B6D2F1 male mice. The DNA delivery by transferrin receptor-mediated endocytosis is described by Schmidt et al. and Wagner et al. (Schmidt et al., Cell 4: 41-51 (1986); Wagner, E., et al. PNAS (1990), (USA) 81: 3410-3414 (1990)). In addition, this delivery system relies on the capacity of adenoviruses to disrupt cell vesicles, such as endosomes and release the contents entrapped therein. The transfection efficiency of this system is almost 2,000 fold higher than lipofection.--

IN THE CLAIMS:

Please cancel Claims 1-134, without prejudice, as originally filed with parent application 09/191,920, and add the following new Claim 135 as being directed to the subject matter of designated claim Group IV, which is herein elected.

--135.(New) A gene therapy method, comprising the steps of:

obtaining a male germ cell from a non-human vertebrate, said germ cell being selected from the group consisting of spermatogonial stem cells, type B spermatogonia, primary spermatocytes, preleptotene spermatocytes, leptotene spermatocytes, zygotene spermatocytes, pachytene spermatocytes, secondary spermatocytes, spermatids, and spermatozoa;

transfecting the male germ cell in vitro with at least one polynucleotide encoding a gene product in operable linkage with a promoter, in the presence of a gene delivery mixture comprising at least one transfecting agent, and optionally a polynucleotide encoding a genetic selection marker;

allowing the polynucleotide encoding a gene product to be taken up by, and released into the germ cell, and

introducing said transfected male germ cell into the testis of a recipient vertebrate, wherein the polynucleotide encoding a gene product is derived from the same vertebrate species as the recipient vertebrate --